

TABLE 3
APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)
AND TO BE CONSIDERED MATERIAL (TBCs)
KOPPERS (NEWPORT) SITE

| ARAR or TBC | Legal Citation | ARAR Class | Requirement Synopsis | Applicability to Selected Remedy | Area of Concern |
|--|---------------------------------|--------------------------|--|--|-----------------|
| I. CHEMICAL SPECIFIC | | | | | |
| A. Water | | | | | |
| 1. Safe Drinking Water Act | 42 U.S.C. § 300f <u>et seq.</u> | | | | |
| a. Maximum Contaminant Level Goals (MCLGs) | 40 C.F.R § 141.50-51 | Relevant and Appropriate | Non-enforceable health goals for public water supplies. The NCP requires that non-zero MCLGs shall be attained by remedial actions for ground water that is a current or potential source of drinking water, where the MCLGs are relevant and appropriate under the circumstances of the release. | The containment of NAPL and NAPL-contaminated soils and sediments will allow for natural attenuation process to work in the Columbia aquifer. It is expected that attenuation processes will be able to restore impacted ground water outside of the containment area once containment is complete. There is no known contamination in the Potomac Aquifer. A State Ground Water Management Zone (GMZ) will be extended to encompass the Site in order to prevent the use of and exposure to Columbia ground water. | GW |
| b. Maximum Contaminant Levels (MCLs) | 40 C.F.R § 141.11-12 | Relevant and Appropriate | Enforceable standards for public drinking water supply systems (with at least fifteen service connections or used by at least 25 people). The NCP requires that MCLs, for those contaminants whose MCLG is zero, shall be attained by remedial actions for ground water that is a current or potential source of drinking water, where the MCLs are relevant and appropriate under the circumstances of the release. | The containment of NAPL and NAPL-contaminated soils and sediments will allow for natural attenuation process to work in the Columbia aquifer. It is expected that attenuation processes will be able to restore impacted ground water outside of the containment area once containment is complete. There is no known contamination in the Potomac Aquifer. A State Ground Water Management Zone (GMZ) will be extended to encompass the Site in order to prevent the use of and exposure to Columbia ground water. | GW |
| 2. Health Effects Assessment | | To be Considered | Non-enforceable toxicity data for specific chemicals for use in public health assessments. Also "to be considered" are Carcinogenic Potency Factors and Reference Doses provided in the Superfund Public Health Evaluation Manual. | To be considered where remedial action addresses risk-based criteria or when setting clean-up standards for the protection of human health. | Site-wide |

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| 3. Delaware Comprehensive Water Resources Management Committee Reports, December 13, 1983 | | To Be Considered | The reports were adopted as policy by the DNREC Secretary. Among these reports is the Groundwater Quality Management Report, July 1983, which provided Delaware with a number of tools for dealing with ground-water contamination. | To be considered for ground water monitoring. | GW |
| 4. Clean Water Act | Clean Water Act, Section 303 | Relevant and Appropriate | Water quality criteria set at levels to protect human health for water and fish ingestion and protection of aquatic life in streams, lakes, and rivers. | To be considered for ground water management if a surface water discharge will be required. To be considered for storm water management if a surface water discharge will be required. | Hershey Run, GW |
| 5. Delaware Surface Water Quality Standards as amended, Feb. 26, 1993 | Sections 3, 4, 5, 6, 8, 9, 10, 11.1, 11.2, 11.3, 11.4, 11.6, 12 | Applicable | Criteria are provided to maintain surface water for streams, lakes, rivers, and standing water in wetlands of satisfactory quality consistent with public health and recreational purposes, the propagation and protection of fish and aquatic life, and other beneficial uses of water. | Any surface water discharge must meet these levels if more stringent than federal regulations. | Hershey Run |
| B. Air | | | | | |
| 1. Clean Air Act | 42 U.S.C § 7401 | | | | |
| a. National Emissions Standards for Hazardous Air Pollutants | 40 C.F.R Part 61 | Relevant and Appropriate | Standards promulgated for air emissions from specific source categories. Not applicable but may be relevant and appropriate for emissions from excavations at Superfund sites. | Relevant and appropriate for potential odors and emissions resulting from excavation. | Uplands |
| 2. Delaware Ambient Air Quality Standards | Title 7, Delaware Code, Ch 60, Regulation 3, Section 6003 | Applicable | Establishes ambient air quality standards. | Applicable for potential releases from excavation work or other remedial actions. | Uplands |
| II. LOCATION SPECIFIC | | | | | |
| 1. Coastal Zone Management Act of 1972; Coastal Zone Act Reauthorization Amendments of 1990 | 16 U.S.C. 1451 <u>et seq.</u> 15 C.F.R. Part 930 | Applicable | Requires that Federal agencies conducting or supporting activities directly affecting the coastal zone, conduct or support those activities in a manner that is consistent with the approved appropriate State coastal zone management program. (See Delaware's Comprehensive Update and Routine Program Implementation, March 1993) | On-site remedial actions are required to be consistent, to the maximum extent practicable, with Delaware's coastal zone management program. EPA must notify Delaware of its determination that the actions are consistent to the maximum extent practicable. | Site-wide |
| 2. The Archaeological and Historical Preservation Act of 1974 | 16 U.S.C § 469 | Applicable | Requirements relating to potential loss or destruction of significant scientific, historical, or archaeological data | The preferred alternative has the potential for disturbing archeological resources. Further action will be taken to identify the potentially affected resources and action will be taken to mitigate any adverse effects on those resources that would result from Remedial activities. | Site-wide |

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| 3. Protection of Floodplains | 40 C.F.R. Part 6, Appendix A | Applicable | Sets forth EPA policy for carrying out provisions of Executive Order 11988 (Floodplain Management) which requires actions to avoid adverse effects, minimize potential harm, and restore and preserve natural and beneficial values. | Applicable since much of the remedial action will take place within both the 100-year and 500-year floodplains. Due to the encroachment of the containment area into tidal wetlands, wetlands will be constructed on site to mitigate the loss of volume inside the floodplain. | Site-wide |
| 4. Protection of Wetlands | 40 C.F.R. Part 6, Appendix A | Applicable | Sets forth EPA policy for carrying out provisions of Executive Order 11990 (Protection of Wetlands) which requires actions to avoid adverse effects, minimize potential harm, and restore and preserve natural and beneficial values. | Applicable since the construction of the containment area will affect wetlands. | Wetlands |
| 5. Delaware Coastal Zone Act, 7 Delaware Code Chapter 70; Coastal Zone Act Regulations, 6/9/93 | 7 Delaware Code Sections 7003, 7004 | To Be Considered | Controls the location, extent, and type of industrial development in Delaware's coastal areas. | Will be considered for consistency since the remedial action involves substantial aquatic habitat and is located in Delaware's coastal area although not in the defined coastal zone of this statute. | ALL |
| 6. Delaware Wetlands Regulations Revised June 29, 1984 | Sections 1, 2, 7 | Applicable | Requires activities that may adversely affect wetlands in Delaware to be permitted. Permits must be approved by the county or municipality having jurisdiction. | Any substantive requirements shall be met since wetlands will be destroyed and replaced in the Hershey Run marsh; and dredged (or excavated) and restored in the wetlands near the South Ponds. Since all of the wetland or remediation is considered "on-site", no permit will be required. | Wetlands |
| 7. Delaware Regulations Governing the Use of Subaqueous Lands, amended September 2, 1992 | Sections 1, 3, 4 | Applicable | Requires activities that affect public or private subaqueous lands in the State be permitted. | Any substantive requirements shall be met since the remediation involves dredging of Hershey Run. However, no permit shall be required. | Wetlands |
| 8. Delaware Executive Order 56 on Freshwater Wetlands (1988) | | To Be Considered | General policy to minimize the adverse effects to freshwater wetlands. | To be considered for wetland remediation and restoration. | Wetlands |
| 9. Governor's Roundtable Report on Freshwater Wetlands (1989) | | To Be Considered | General policy to minimize the adverse effects to freshwater wetlands. | To be considered for wetland remediation and restoration. | Wetlands |
| 10. Ground Water Protection Strategy of 1984 | EPA 440/6-84-002 | To be Considered | Identifies ground water quality to be achieved during remedial actions based on aquifer characteristics and use. | The EPA aquifer classification will be taken into consideration during design and implementation of the remedy. | GW |
| 11. Requirements pertaining to White Clay Creek, a Wild and Scenic River | Wild and Scenic River Act 36 C.F.R. Part 297 | Applicable | Requirements to maintain the WSR in a free-flowing condition to protect the water quality and to fulfill other vital national conservation purposes | Applies to White Clay Creek, the stream into which Hershey Run drains | Site-wide |

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| III. ACTION SPECIFIC | | | | | |
| A. Miscellaneous | | | | | |
| 1. Council on Environmental Quality | 40 C.F.R. 1500.2(f) | Relevant and Appropriate | Requires use of all practicable means, consistent with the requirements of NEPA to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects upon the quality of the human environment. | Institutional controls shall be added to the Site to make sure the restored wetlands remain wildlife habitat. | Wetlands |
| 2. Delaware Regulations Governing Hazardous Substance Cleanup, 1/93 | Section 9 | Relevant and Appropriate | Establishes clean-up criteria for hazardous waste sites. Only criteria considered relevant and appropriate are for ground water and soil (1×10^{-5} ; Hazard Index of 1; or natural background if higher). | The cleanup criteria for the Site, though derived from the results of the Ecological Risk Assessment, are protective of Human Health as well. | Uplands, GW |
| 3. Requirements for dredging, excavation and rechannelization | The Rivers and Harbors Act, Section 10 | Applicable | Substantive requirements of a Section 10 permit for disposal of dredged and/or excavated materials at an approved facility or in a containment cell | Applies to all materials dredged or excavated during rechannelization of a navigable water of the U.S. | Site-wide |
| 4. Requirements for dewatering from dredging operation | Clean Water Act, Section 404 | Applicable | Substantive requirements for the discharge resulting from the dewatering of dredged or fill material into the waters of the U.S. | Applies to all discharges from materials dredged or excavated requiring dewatering during rechannelization of a navigable water | Site-wide |
| B. Water | | | | | |
| 1. Clean Water Act (CWA); National Pollutant Discharge Elimination System Requirements | 40 C.F.R. Part 122-125 | Applicable | Enforceable standards for all discharges to waters of the United States. | Discharge limits shall be met for any on-site discharges to surface water including treated ground water (if necessary) and wastewater from dewatering dredge material. Only substantive requirements shall be met and no permit shall be required. | Wetlands GW |
| 2. General Pretreatment Regulations | 40 C.F.R. Part 403 | Applicable | Standards for discharge to POTW. | Applicable should the extracted ground water, treated ground water, or wastewater from dredge material be discharged to a POTW. | Wetlands GW |
| 3. Section 10 of the River and Harbors Act | 33 U.S.C. Section 403 33 C.F.R. Part 320-330 | Applicable | Permitting requirements for dredging. | The stream and wetland dredging will comply to any substantive requirements, but no permit will be required. | Wetlands |
| 4. State of Delaware Regulations Governing the Construction of Water Wells, January 20, 1987 | Sections 3, 4, 5, 6, 7, 8, 9, 10 | Applicable | Contain requirements governing the location, design, installation, use, disinfection, modification, repair, and abandonment of all wells and associated pumping equipment. | Installation of any monitoring and recovery wells and the abandonment of wells shall meet all substantive requirements. | Site-wide |
| 5. Delaware Water Quality Standards, as amended, February 26, 1993 | Sections 3-6, 8-10, 11.1, 11.2, 11.3, 11.4, 11.6, 12 | Applicable | Standards are established in order to regulate the discharge into state waters in order to maintain the integrity of the water. | Applicable should the ground water management system involve discharge to surface water. | Hershey Run, GW |

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| 6. Delaware River Basin Commission (DRBC) Water Quality | DRBC Ground Water Protected Area Regulation, No. 4, 6(f), 9, 10; Water Code of the Basin, Sections 2.20.4, 2.50.2 | To Be Considered | Regulate restoration, enhancement, and preservation of waters in the Delaware River basin. | To be considered if remedial action involves discharge of >50,000 gallons/day average over any month or a withdrawal of ground water of 100,000 gallons/day or more average over any month. | Hershey Run, GW |
| 7. Delaware Regulations Governing the Allocation of Water March 1, 1987 | Sections 1, 3, 5.05 | Applicable | Contain information pertaining to water allocation permits and criteria for their approval. | May be applicable for the ground water management system. No permit required. | Hershey Run, GW |
| 8. State of Delaware Groundwater Management Plan November 1, 1987 | | To Be Considered | Policy for ground-water management. | To be considered in setting the ground water management zone. | GW |
| 9. Delaware Regulations Governing Control of Water Pollution, amended 6/23/83 | Section 7, 8, 9, 10, 11, 12, 13 | Applicable | Contain water quality regulations for the discharging into surface and ground water. | Applicable for potential discharge of treated ground water into surface water. Also applicable for potential storm water runoff into Hershey Run, White Clay Creek or the Christina River. | Surface Waters, GW |
| C. Sediments/Solids | | | | | |
| 1. Delaware Sediment and Stormwater Regulations January 23, 1991 | Section 3, 6, 9, 10, 11, 15 | Applicable | Establishes a statewide sediment and stormwater management program. | A stormwater and sediment management plan consistent with Delaware requirements must be approved by EPA before construction disturbing over 5,000 square feet of land can begin. | Site-wide |
| D. Waste Handling and Disposal | | | | | |
| 1. RCRA Subtitle D Landfill Regulations | 40 C.F.R. 258.60(a) | Relevant and Appropriate | Closure requirements for RCRA subtitle D landfills. | Provides some technical requirements for the cap for the containment area. | Uplands |
| 2. Delaware Regulations Governing Hazardous Waste | SEE BELOW F.5, F.7, F.9, F.11, F.13, F.15, F.17 | SEE BELOW | Delaware Regulations Governing Hazardous Waste Part 261 define "hazardous waste". The regulations listed below apply to the handling of such hazardous waste. | SEE BELOW | SEE BELOW |
| 3. Resource Conservation and Recovery Act of 1976; Hazardous and Solid Waste Amendments of 1984 | SEE BELOW F.6, F.8, F.10, F.12, F.14, F.16, F.18 Federal regulations would not apply for those regulations which Delaware has the authority from EPA to administer. | SEE BELOW | Regulates the management of hazardous waste, to ensure the safe disposal of wastes, and to provide for resource recovery from the environment by controlling hazardous wastes "from cradle to grave." | SEE BELOW | SEE BELOW |

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| 4. Standards Applicable to Generators of Hazardous Waste | Delaware Regulations Governing Hazardous Waste, Part 262.10-58 | Applicable | Establishes standards for generators of hazardous wastes including waste determination manifests and pre-transport requirements. (Applies to recovered creosote NAPL drummed for off-site treatment or recycling.) | Applicable to operator(s) of the NAPL recovery and ground water management systems because the wastes to be recovered are a RCRA-hazardous waste. | Site-wide |
| 5. Standards Applicable to Generators of Hazardous Waste | EPA Regulations, 40 C.F.R Part 262.10-58 | Applicable | Establishes standards for generators of hazardous wastes including waste determination manifests and pre-transport requirements. | Applicable to operator(s) of the NAPL recovery and ground water management systems because the wastes to be recovered are a RCRA-hazardous waste. | Site-wide |
| 6. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) | Delaware Regulations Governing Hazardous Waste, Part 264 (40 C.F.R Part 264) | Applicable | Regulations for owners and operators of TSDFs which define acceptable management of hazardous wastes. | Applies to onsite recovery and treatment systems which handle hazardous waste | Site-wide |
| 7. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) | EPA Regulations, 40 C.F.R Part 264 | Applicable | Regulations for owners and operators of TSDFs which define acceptable management of hazardous wastes. | Applies to onsite recovery and treatment systems which handle hazardous waste | Site-wide |
| 8. RCRA Requirements for Use and Management of Containers | Delaware Regulations Governing Hazardous Waste, Part 264.170-178 | Applicable | Requirements for storage of hazardous waste in storage containers. | Applicable for temporary storage containers and on-site treatment systems. | Site-wide |
| 9. RCRA Requirements for Use and Management of Containers | EPA Regulations, 40 C.F.R Part 264.170-178 | Applicable | Requirements for storage of hazardous waste in storage containers. | Applicable for temporary storage containers and on-site treatment systems. | Site-wide |
| 10. RCRA Requirements for Tanks Systems | Delaware Regulations Governing Hazardous Waste, Part 264.190-199 | Applicable | Requirements for storage or treatment of hazardous waste in tank systems. | Only applicable for onsite treatment systems and temporary storage tanks containing hazardous wastes. | Site-wide |
| 11. RCRA Requirements for Tanks Systems | EPA Regulations, 40 C.F.R Part 264.190-199 | Applicable | Requirements for storage or treatment of hazardous waste in tank systems. | Only applicable for onsite treatment systems and temporary storage tanks containing hazardous wastes. | Site-wide |
| 12. The Hazardous Waste Permit Program | Delaware Regulations Governing Hazardous Waste, Part 122 | Applicable | Requires a permit for the treatment, storage, or disposal of any hazardous waste as identified or listed in Part 261. | Any substantive requirements will be met. But no permit will be required | Site-wide |

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| 13. The Hazardous Waste Permit Program | EPA Regulations, 40 C.F.R. Part 122 | Applicable | Requires a permit for the treatment, storage, or disposal of any hazardous waste as identified or listed in Part 261. | Any substantive requirements will be met. But no permit will be required | Site-wide |
| 14. Identification and Listing of Hazardous Wastes | Delaware Regulations Governing Hazardous Wastes, Part 261 | Applicable | Identifies solid wastes which are regulated as hazardous wastes. | Use to determine which materials to be disposed of are hazardous wastes. | Site-wide |
| 15. Identification and Listing of Hazardous Wastes | EPA Regulations, 40 C.F.R. Part 261 | Applicable | Identifies solid wastes which are regulated as hazardous wastes. | Use to determine which materials to be disposed of are hazardous wastes. | Site-wide |
| 16. RCRA Land Disposal Restrictions | Delaware Regulation Governing Hazardous Waste, Part 268 | Applicable | Restrictions on land disposal of hazardous wastes. | Applies to consolidation of waste which is hazardous from across the Site. (EPA has herein designated the containment areas as Areas of Contamination.) | Site-wide |
| 17. RCRA Land Disposal Restrictions | EPA Regulations, 40 C.F.R. Part 268 | Applicable | Restrictions on land disposal of hazardous wastes. | Applies to consolidation of waste which is hazardous from across the Site. (EPA has herein designated the containment areas as Areas of Contamination.) | Site-wide |